

FORSELL, Peter
Application Serial No. 10/522,538

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions, and listings, of claims in the application.

Claims 1-30 (Canceled)

31. (Currently Amended) An implantable constriction device for constricting penile blood vessels of a patient for treating impotence, the constriction device comprising an elongate composite structure adapted to constrict the exit penile veins or corpus cavernosa of the patient to restrict the penile venous blood flow, wherein said elongate composite structure is composed of a base material making said composite structure self-supporting and property improving means for improving at least one physical property of said composite structure other than self-supporting properties, wherein the base material comprises a layer of polyurethane and a layer of silicone, wherein the property improving means comprises a layer or a coating applied on the base material, and wherein the layer or coating applied on the base material is of a material different than from the base material.

32. (Currently Amended) An implantable constriction device according to claim 31, wherein said property improving means comprises a layer or a coating coated applied on said base material at least along a side of said elongate composite structure that is intended to contact the exit penile veins or corpus cavernosa, said layer or coating having better aggressive body fluid resistant properties than said base material.

33. (Currently Amended) An implantable constriction device according to claim 3132, wherein said layer or coating of the property improving means is selected from a group consisting of comprises a Teflon™ or PTFE or poly-tetra-fluoro-ethylene, Parylene™ or poly-paraxylylene polymer, and a biocompatible metal coating, polytetrafluoroethylene ("PTFE") or poly-paraxylylene polymer coating, or a biocompatible metal coating.

34. (Currently Amended) An implantable constriction device according to claim 3132, wherein said property improving means comprises a core of a viscoelastic material covered with said self-supporting base material.

35. (Currently Amended) An implantable constriction device according to claim 34, wherein hard silicone and polyurethane constitutes comprising comprise said base material.

36. (Previously Presented) An implantable constriction device according to claim 34, wherein said viscoelastic material comprises silicone gel, cellulose gel or collagen gel.

37. (Currently Amended) An implantable constriction device according to claim 3132, wherein said base material forms an inflatable tubing.

38. (Currently Amended) An implantable constriction device according to claim 37, wherein said tubing has an inner surface defining the interior of said tubing, and said layer or coating of the property improving means covers said inner surface.

39. (Currently Amended) An implantable constriction device according to claim 37, wherein said layer or coating of the property improving means is selected from the group consisting of Teflon™ or PTFE or poly-tetra-fluoro-ethylene, Parylene™ or poly-paraxylylene polymer, and a biocompatible metal coating, ~~coating comprises a poly-tetrafluoroethylene ("PTFE") or poly-paraxylylene polymer coating, or a biocompatible metal coating~~.

40. (Currently Amended) An implantable constriction device according to claim 37, wherein hard silicone and polyurethane ~~constitute~~comprising ~~comprise~~ said base material.

41. (Previously Presented) An implantable constriction device according to claim 37, wherein said base material forms two coaxial tubular layers and said property improving means comprises a tubular intermediate layer of a viscoelastic material located between said coaxial tubular layers.

42. (Previously Presented) An implantable constriction device according to claim 41, wherein said viscoelastic material comprises silicone gel, cellulose gel or collagen gel.

43. (Previously Presented) An implantable constriction device according to claim 37, wherein said base material forms an outer tubular layer, an inner arcuate layer attached to said outer tubular layer, said outer and inner layers defining a curved space extending longitudinally along said tubing, and said property improving means comprises viscoelastic material filling said space.

44. (Previously Presented) An implantable constriction device according to claim 43, wherein said viscoelastic material comprises silicone gel, cellulose gel or collagen gel.

45. (Currently Amended) An implantable constriction device according to claim 31, wherein said property improving means comprises a layer or a coating applied ~~coated~~ on said base material at least along a side of said elongate composite structure that is intended to contact the exit penile veins or corpus cavernosa, said layer or coating having better anti-friction properties than said base material.

46. (Currently Amended) An implantable constriction device according to claim 45, wherein said layer or coating of said property improving means is selected from the group consisting of a ~~Teflon™ or PTFE or~~ poly-tetra-fluoro-ethylene, ~~Parylene™ or~~ poly-paraxylylene polymer, and a biocompatible metal ~~coating~~ ~~coating~~ comprises a ~~poly~~ ~~tetrafluoroethylene or poly para~~ ~~xylylene polymer coating, or a biocompatible metal~~ ~~coating~~.

47. (Previously Presented) An implantable constriction device according to claim 45, wherein said property improving means comprises a core of a viscoelastic material covered with said self-supporting base material.

48. (Currently Amended) An implantable constriction device according to claim 47, wherein hard silicone ~~constitutes and~~ polyurethane comprising said base material.

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49. (Previously Presented) An implantable constriction device according to claim 47, wherein said viscoelastic material comprises silicone gel, cellulose gel or collagen gel.

50. (Previously Presented) An implantable constriction device according to claim 45, wherein said base material forms an inflatable tubing.

51. (Currently Amended) An implantable constriction device according to claim 50, wherein said tubing has an inner surface defining the interior of said tubing, and said layer or coating of said property improving means covers said inner surface.

52. (Currently Amended) An implantable constriction device according to claim 50, wherein said layer or coating of said property improving means is selected from the group consisting of a Teflon™ or PTFE or poly-tetra-fluoro-ethylene, Parylene™ or poly-paraxylylene polymer, and a biocompatible metal coating ~~coating comprises a polytetrafluoroethylene or poly para xylylene polymer coating, or a biocompatible metal coating~~.

53. (Currently Amended) An implantable constriction device according to claim 50, wherein hard silicone and polyurethane ~~constitutescomprising~~ comprise said base material.

54. (Previously Presented) An implantable constriction device according to claim 50, wherein said base material forms two coaxial tubular layers and said property improving means comprises a tubular intermediate layer of a viscoelastic material located between said coaxial tubular layers.

55. (Previously Presented) An implantable constriction device according to claim 54, wherein said viscoelastic material comprises silicone gel, cellulose gel or collagen gel.

56. (Previously Presented) An implantable constriction device according to claim 50, wherein said base material forms an outer tubular layer, an inner arcuate layer attached to said outer tubular layer, said outer and inner layers defining a curved space extending longitudinally along said tubing, and said property improving means comprises a viscoelastic material filling said space.

57. (Previously Presented) An implantable constriction device according to claim 56, wherein said viscoelastic material comprises silicone gel, cellulose gel or collagen gel.

58. (Currently Amended) An implantable constriction device according to claim 31, wherein said base material forms a ~~first layer and~~with said property improving means ~~comprises a second layer applied on said first layer, said second layer being~~is more fatigue resistant than said ~~first layer~~base material.

59. (Currently Amended) An implantable constriction device according to claim 58, wherein said ~~second layer or coating of~~said property improving means ~~covers~~ ~~first layer of~~ said base material along a side of said elongate composite structure that is intended to contact the exit penile veins or corpus cavernosa .

60. (Currently Amended) An implantable constriction device according to claim 58, wherein said ~~second layer or coating~~comprises a polyurethane layer surrounding said silicone layer.

61. (Currently Amended) An implantable constriction device according to claim 58, wherein said property improving means comprises a layer or a coating coated-applied on said ~~first layer and/or said second layer~~base material, said layer or coating having better aggressive body fluid resistance properties and/or better anti-friction properties than said base material.

62. (Currently Amended) An implantable constriction device according to claim 61, wherein said layer or coating of the property improving means is selected from the group consisting of Teflon™ or PTFE or poly-tetrafluoro-ethylene, Parylene™ or poly-paraxylylene polymer, and biocompatible metal coating ~~comprises a poly-tetrafluoroethylene or poly para-xylylene polymer coating, or a biocompatible metal coating~~.

63. (Currently Amended) An implantable constriction device according to claim 58, wherein hard silicone and polyurethane ~~constitutes comprising comprise~~ said base material.

64. (Currently Amended) An implantable constriction device according to claim 58, wherein ~~said first layer of said base material forms an inflatable tubing, and said second layer layer or coating~~ covers said base material within said tubing.

65. (Currently Amended) An implantable constriction device according to claim 31, wherein ~~said base material forms an inflatable tubing and said property improving means comprises a liquid impermeable coating coated-applied~~ on said base material.

66. (Currently Amended) An implantable constriction device according to claim 65, wherein said base material forms an inflatable tubing having ~~wherein said tubing has~~ an external surface of said base material and an internal surface of said base material defining the interior of said tubing, said coating being coated on said external surface and/or internal surface.

67. (Currently Amended) An implantable constriction device according to claim 65, wherein said layer or coating is selected from the group consisting of Teflon™ or PTFE or ~~poly-tetrafluoro-ethylene, Parylene™ or~~ poly-paraxylylene polymer, and a biocompatible metal coating. ~~comprises a poly para xylylene polymer coating, or a biocompatible metal coating.~~

68. (Currently Amended) An implantable constriction device according to claim 65, wherein hard silicone and polyurethane constitutes said base material.

69. (Previously Presented) An implantable constriction device according to claim 65, wherein said base material forms two coaxial tubular layers and said property improving means comprises a tubular intermediate layer of a viscoelastic material located between said coaxial tubular layers.

70. (Previously Presented) An implantable constriction device according to claim 69, wherein said viscoelastic material comprises silicone gel, cellulose gel or collagen gel.

71. (Previously Presented) An implantable constriction device according to claim 65, wherein said base material forms an outer tubular layer and an inner arcuate layer

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attached to said outer tubular layer, said outer and inner layers defining a curved space extending longitudinally along said tubing, and said property improving means comprises viscoelastic material filling said space.

72. (Previously Presented) An implantable constriction device according to claim 71, wherein said viscoelastic material comprises silicone gel, cellulose gel or collagen gel.

73. (Previously Presented) An implantable constriction device according to claim 31, wherein said property improving means comprises gas contained in a multiplicity of cavities formed in said base material to improve the flexibility of said composite structure.

74. (Previously Presented) An implantable constriction device according to claim 73, wherein said cavities are defined by net structures of said base material.

75. (Currently Amended) An implantable constriction device according to claim 73, wherein Teflon™ or PTFE or poly-tetrafluoro ethyleneTeflon™ constitutes comprising said base material is comprised of poly-tetrafluoro-ethylene.

76. (Previously Presented) An implantable constriction device according to claim 73, wherein said composite structure forms an inflatable tubing.

77. (Currently Amended) An implantable constriction device for constricting penile blood vessels of a patient for treating impotence, the constriction device comprising an elongate composite structure adapted to constrict the exit penile veins or corpus

cavernosa of the patient to restrict the penile venous blood flow, wherein the composite structure includes an elongate biocompatible self-supporting base material, and a property improving means for improving at least one physical property of said composite structure other than self-supporting properties, wherein the base material comprises a layer of polyurethane and a layer of silicone, and wherein the property improving means comprises a layer or coating applied on the base material, and wherein the layer or coating applied on the base material is having surfaces exposed to aggressive body cells, when the constriction device is implanted in the patient, and a cell barrier coating coated on said surfaces to prevent body cells from breaking down the base material.

78. (Currently Amended) An implantable constriction device according to claim 77, wherein said barrier layer or coating is selected from the group consisting of poly-tetra-fluoro-ethylene, poly-paraxylylene polymers or a poly-paraxylylene polymer coating or and a biocompatible metal coating.

79. (New) An implantable constriction device according to claim 77, wherein said base material with said property improving means is more fatigue resistant than said base material.

80. (New) An implantable constriction device according to claim 79, wherein said base material forms an inflatable tubing having an external surface of said base material and an internal surface of said base material defining the interior of said tubing, said coating being coated on said external surface and/or internal surface.

81. (New) An implantable constriction device according to claim 77, wherein said property improving means comprises a core of a viscoelastic material covered with said self-supporting base material.

82. (New) An implantable constriction device according to claim 77, wherein hard silicone and polyurethane comprise said base material.

83. (New) An implantable constriction device according to claim 81, wherein said viscoelastic material comprises silicone gel, cellulose gel or collagen gel.

84. (New) An implantable constriction device according to claim 77, wherein said base material forms an inflatable tubing.

85. (New) An implantable constriction device according to claim 84, wherein said tubing has an inner surface defining the interior of said tubing, and said layer or coating of said property improving means covers said inner surface.

86. (New) An implantable constriction device according to claim 85, wherein said layer or coating of said property improving means is selected from the group consisting of poly-tetra-fluoro-ethylene, poly-paraxylylene polymer, and a biocompatible metal coating.

87. (New) An implantable constriction device according to claim 77 having an external surface and internal surface of said base material, wherein said coating of said

property improving means is coated on at least one of said external surface and internal surface.

88. (New) An implantable constriction device according to claim 31, wherein said base material forms an inflatable tubing having an external surface of said base material and an internal surface of said base material defining the interior of said tubing, said coating being coated on said external surface and/or internal surface.

89. (New) An implantable constriction device according to claim 77, wherein said base material forms two coaxial tubular layers and said property improving means comprises a tubular intermediate layer of a viscoelastic material located between said coaxial tubular layers.

90. (New) An implantable constriction device according to claim 89, wherein said viscoelastic material comprises silicone gel, cellulose gel or collagen gel.

91. (New) An implantable constriction device according to claim 58 wherein said base material forms an inflatable tubing having an external surface of said base material and an internal surface of said base material defining the interior of said tubing, said coating being coated on said external surface and/or internal surface.

92. (New) An implantable constriction device according to claim 77, wherein said base material forms an outer tubular layer, an inner arcuate layer attached to said outer tubular layer, said outer and inner layers defining a curved space extending longitudinally along said tubing, and said property improving means comprises a viscoelastic material filling said space.

93. (New) An implantable constriction device according to claim 92, wherein said viscoelastic material comprises silicone gel, cellulose gel or collagen gel.